CLAIMS

1. A method for updating a self-describing, structured document, the method including:

receiving a character string including one or more sets of:

an update operator;

a path specification identifying a node at which the update operator is to be applied; and

one or more update values;

parsing the character string;

accessing a self-describing, structured document; and

updating said document with the update values at the path specification.

2. The method of claim 1, wherein the character string further includes a document ID.

3. The method of claim 2, wherein accessing the document includes retrieving the document based on the document ID.

4. The method of claim 1, wherein a document ID is implied by prior state information.

5. The method of claim 4, wherein accessing the document includes accessing a data-object-model (DOM) data structure in memory.

6. The method of claim 1, wherein the path specification is compliant with any version of an XPath standard.

7. The method of claim 3, wherein the path specification is compliant with any version of an XPath standard.

8. The method of claim 5, wherein the path specification is compliant with any version of an XPath standard.

9. The method of claim 1, wherein the self-describing, structured document includes a document type, further including accessing a schema corresponding to the document type and validating application of the update operator and the update values at the path specification.

10. The method of claim 7, wherein the self-describing, structured document includes a document type, further including accessing a schema corresponding to the document type and validating application of the update operator and the update values at the path specification.

11. The method of claim 8, wherein the self-describing, structured document includes a document type, further including accessing a schema corresponding to the document type and validating application of the update operator and the update values at the path specification.

12. The method of claim 9, wherein the schema is compliant with any version of a SOX standard.

13. The method of claim 10, wherein the schema is compliant with any version of a SOX standard.

14. The method of claim 11, wherein the schema is compliant with any version of a SOX standard.

15. The method of claim 1, further including accessing an element set list corresponding to a plurality of the update values to be applied at the path specification.

16. The method of claim 7, further including accessing an element set list corresponding to a plurality of the update values to be applied at the path specification.

17. The method of claim 8, further including accessing an element set list corresponding to a plurality of the update values to be applied at the path specification.

18. The method of claim 9, further including accessing a set of business processing rules corresponding to the document type and validating application of the update operator and the update values at the path specification.

19. The method of claim 10, further including accessing a set of business processing rules corresponding to the document type and validating application of the update operator and the update values at the path specification.

20. The method of claim 11, further including accessing a set of business processing rules corresponding to the document type and validating application of the update operator and the update values at the path specification.

21. The method of claim 18, wherein the business processing rules are Schematron-compliant.

22. The method of claim 19, wherein the business processing rules are Schematron-compliant.

23. The method of claim 20, wherein the business processing rules are Schematron-compliant.

24. The method of claim 1, wherein a single update operator applies to a plurality of the sets.

25. The method of claim 1, wherein the update operator is implied and not explicit in the character string.

26. The method of claim 1, wherein the update operator specifies adding one or more update values as sibling nodes of the node identified.

27. The method of claim 1, wherein the update operator specifies adding one or more update values as sibling nodes of the node identified, after the node identified.

28. The method of claim 1, wherein the update operator specifies adding one or more update values as sibling nodes of the node identified, before the node identified.

29. The method of claim 1, wherein the update operator specifies adding one or more update values as descendent nodes of the node identified.

30. A method for updating of a self-describing, structured document, the method including:

receiving a request identifying a starting document and specifying a document type to be generated from the starting document;

accessing at least first and second declarative transformations corresponding to the starting document and the specified document type;

applying the first declarative transformation to the starting document, producing a resulting document of the specified document type;

applying the second declarative transformation to the resulting document, producing character string data including a plurality of

path specifications for nodes in the resulting document;

starting values copied from the starting document for at least some of the nodes; and

editable values for at least some of the nodes;

responding to the request with the character string data;

receiving an updated version of the character string data; and

producing an updated resulting document corresponding to the updated version of the character string data.

31. The protocol of claim 30, wherein the request further includes a document ID.

32. The method of claim 31, further including accessing the starting document based on the document ID.

33. The method of claim 30, wherein a document ID is implied by prior state information.

34. The method of claim 33, wherein the starting document is represented by a data-object-model (DOM) data structure in memory.

35. The method of claim 30, wherein the path specifications are compliant with any version of an XPath standard.

36. The method of claim 32, wherein the path specifications are compliant with any version of an XPath standard.

37. The method of claim 34, wherein the path specifications are compliant with any version of an XPath standard.

38. The method of claim 30, wherein the specified document type corresponds to a schema, further including validating the updated resulting document against the schema.

39. The method of claim 38, wherein the specified document type and a chosen trading partner correspond to a set of business processing rules, further including validating the updated resulting document against the set of business processing rules.

40. The method of claim 38, wherein the schema is compliant with any version of a SOX standard.

41. The method of claim 39, wherein the schema is compliant with any version of a SOX standard.

The method of claim 39, wherein the business processing rules are Schematron-compliant.